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10/584,830	06/27/2006	Luciano Salice	SALICE-1 PCT	4076
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COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			EXAMINER MORGAN, EMILY M	
			ART UNIT	PAPER NUMBER
			3677	
			MAIL DATE	DELIVERY MODE
			12/22/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,830	<b>Applicant(s)</b> SALICE, LUCIANO	
	<b>Examiner</b> EMILY M. MORGAN	<b>Art Unit</b> 3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-17, 20-22, 24 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-17, 20-22, 24 and 28-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “first housing” and “second housing” of claim 28 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

Claims 28-30 are objected to because of the following informalities: Applicant claims a "first housing" and "second housing" which has not been described or pointed out in the figures. Examiner will assume that since the "second housing comprising a casing element", that the "second housing" member is intended to be an equivalent to the casing member. The "first housing" fixes to the door, and applicant uses the non-claimed phrase "cup" later in the claim, that the "first housing" is an equivalent to the cup. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 28-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant claims "First housing" and "second housing" which cannot be found in the specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant claims "said cup" in the fourth paragraph of claim 28, but had not previously claimed "a cup". Applicant claims a "side enclosure" and "an opposite side enclosure", which has not been shown, or clearly defined in the claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-17, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over patent 6859979 to Egger.

Regarding claim 1, Egger discloses a furniture hinge (for cabinet fitting, abstract) comprising: a fixing arm 2 for fixing to a piece of furniture, means for fixing to a door of said piece of furniture, incorporating a cup 5, first 4 and second 3 rockers, forming an articulated quadrilateral and joining said fixing arm 2 to said cup 5 so as to allow reciprocal pivoting thereof (opening and closing the cabinet, column 1, line 53), a connection element 34 fixed to the first rocker 4, damping means 7 of said reciprocal pivoting comprising a slider 8, controlled in translation by the connection element 34 and suitable to translate according to a first direction (shown in the movements between

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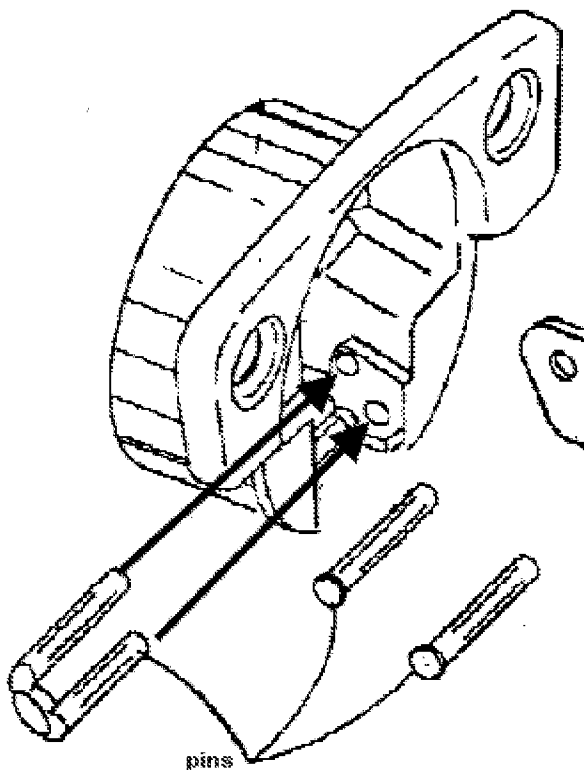
figures 7 and 8) corresponding to a pivoting of the hinge, said slider 8 cooperating with kinematic means for motion conversion suitable to convert a translational motion of the slider into a damping pivoting motion (column 4, lines 6-12), wherein the damping means 7 comprise a housing 6, separate from said cup 5, enclosing said slider 8, the housing comprising a casing element 6 guiding the movement of the slider 8, damping moving elements 15, 16, and said kinematic means for motion conversion, and are provided with fast connection means 19 to said cup 5 so that said slider 8 and said damping moving elements 15, 16 are suitable to be assembled with one another with the housing 6 so that said damping means form a single element suitable to be fixed to one end of said cup in a single operation (screwing the housing 6 to the cup 5). The housing of the slider and brake plates is contained between the base plate and the hinge cup.

Egger discloses the claimed invention except for the housing comprising a casing element separate from said cup. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to make the hinge cup into two pieces, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. See MPEP 2144; *In re Dulberg*, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961). The hinge cup houses the braking means between the base plate and the hinge cup, and also attaches to the hinge arm 2. It would have been obvious to one of ordinary skill in the art to separate the part of the hinge cup that attaches to the base plate from the part of the hinge cup that attaches to the arm. Since the braking means needs to be attached to the hinge cup to be used,

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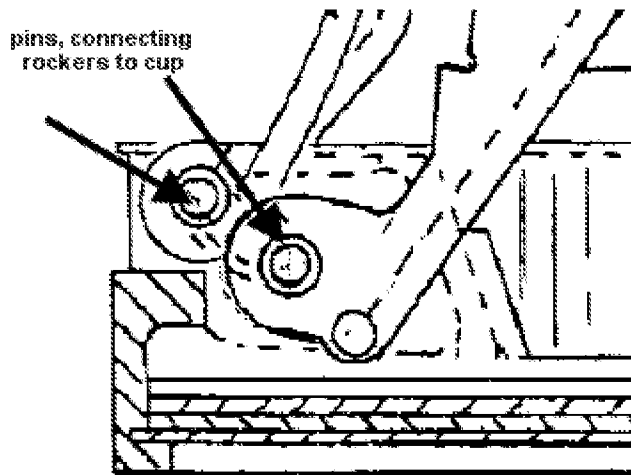
they can be put together in a number of known methods in the hinge art. This way, the braking means can be easily replaced since the braking means are contained within two housing units, and the whole hinge does not have to be taken apart in order to fix or replace the parts.

Regarding claim 15, Egger discloses the hinge according to claim 14, wherein said fast connection means 19 are pins (figure 4) suitable to engage first holes of the housing and second holes of the cup. The pins are shown in figure 4 near holes in the cup, shown below. These pins are placed in the same position as the holes in the cup, so the fast connection means uses pins in holes in the cup, shown by Egger.



In the figure below, these pins are used to connect the rockers to the cup, shown in figure 2.

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Egger does not disclose the pins connecting through the housing as well as the cup.

The difference between the claim and Egger is the claim recites: the pins go through the housing as well as the cup. It would have been obvious to one of ordinary skill in the art at the time the invention was made to shape the housing to accommodate the pins since it has been held that mere duplication of the essential working parts of a device involves only routine skilled the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. This would ensure that the housing stays in place. Placing the pins through the housing as well as the cup creates a second and third connection between the two articles, preventing the housing from separating. This would prevent the viscous fluid from leaking, causing damage to the hinge, as well as causing damage to the hinged article. This would be motivated by creating a duplicate connection point, ensuring that a separation between the housing and cup would not occur. In the case above, it was found that while the addition of multiple plies to the concept of the Poppe had



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undoubtedly made it stronger, it is not the type of innovation for which a patent monopoly is to be granted.

Regarding claim 16, Egger discloses the hinge according to claim 14, wherein said damping moving elements 15, 16 are circular in shape (figure 4), immersed in a viscous means (column 3, lines 6-7) which wets the outer surfaces thereof ("between the fixed and movable brake surfaces", column 3, line 7), and suitable to pivot about an axis perpendicular to the first direction (Egger discloses a hinge suitable to pivot around an axis perpendicular to the pins) so as to cause a braking force corresponding to movements of the hinge (braking force can only be created when the hinge is moved, since a static hinge creates no forces in any direction).

Regarding claim 17, Egger discloses the furniture hinge according to claim 16, wherein said damping moving elements 15, 16 comprise a flat shaped disc (figure 4).

Regarding claim 20, Egger discloses the furniture hinge according to claim 17, wherein the kinematic means for motion conversion comprise a series of grooves 24, 23, 29, 28 on the disc and a protuberance 14, 13 fixed on the slider 8 which couples engages with at least one groove (figure 5) shaped to cause rotation pivoting of the disc (abstract). Egger discloses the claimed invention except for the shape of the grooves. It would have been obvious to one having ordinary skill in the art at the time the invention as made to make the grooves a spiral, a change in the shape of a prior art

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device is a design consideration within the skill of the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Regarding claim 21, Egger discloses the furniture hinge according to claim 20, wherein the spiral grooves have profiles with saw toothed tooth sections and the protuberance on the slider has a profile with a section having a complementary shape to the profiles of the grooves. Egger discloses having saw-toothed grooves in discs in figure 10. The brake disks 35 and 38 have saw tooth grooves, and external rings 37 and 40 have complimentary saw tooth grooves. Egger also discloses the slider 8 having a complimentary shape to grooves in the brake plates, shown in figure 5. Note that it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. See also, *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975) (the particular placement of a contact in a conductivity measuring device was held to be an obvious matter of design choice). It would have been obvious to one of ordinary skill in the art at the time of the invention to make the brake plate have saw tooth grooves within the shaped groove mentioned in claim 20, and have correspondingly shaped grooves on the slider. This would be motivated by the desire to reduce the number of parts necessary. Modifying Egger in this manner would eliminate the rings 37 and 40, since its purpose would be incorporated into the slider. Fewer pieces in the hinge would result in lesser material costs, shorter assembly and machining time, all of which would reduce the cost of manufacturing the hinge.

Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egger as applied to claims above, and further in view of patent 3102311 to Martin.

Regarding claim 22, Egger discloses the furniture hinge according to claim 21, but does not disclose engaging the grooves in one direction.

Martin discloses a zip tie is a plastic article that ties items together similarly to rope. The zip tie is a quick application, wrapping the tie around the articles, inserting the end into the locking part, and pulling tight. The long end of the zip tie is covered in ridges, which is frictionally grabbed by the locking part. The long end slides through the locking part easily, but does not allow the long end to slide out in the opposite direction without assistance.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the uni-directional grooves of the zip tie into the hinge braking assembly of Egger. This would be motivated by creating a consumer pleasing cabinet hinge. Many consumers do not appreciate a heavy door accidentally slamming shut, creating a loud noise and possible damage to the cabinet. For purposes of expedience, braking the opening direction would be undesirable by consumers. It would be desired by the consumer to brake the door in the closing direction rather than the opening direction. In order to boost sales of a cabinet hinge, incorporating the uni-direction braking would attract consumers to this particular hinge.

Regarding claim 24, Egger as modified discloses the furniture hinge according to claim 22. As discussed in claim 21, the slider has protuberances, which would

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correspond to saw tooth grooves as modified with the second embodiment of Egger.

This modification of Egger would produce the hinge wherein the protuberance on the slider is provided with a substantially pointed end, suitable to press on the profiles with saw tooth sections of the spiral grooves. These would interact during closing of the door starting from a partially open position of the door itself, and interact during any motion of the cabinet door.

Regarding claim 28, Egger discloses a furniture hinge (for cabinet fitting, abstract) comprising:

- a fixing arm 2 for fixing to a piece of furniture,

- a first housing 5 for fixing to a door of said piece of furniture,

- first 4 and second 3 rockers, forming an articulated quadrilateral and joining said fixing arm 2 to said cup 5 so as to allow reciprocal pivoting thereof (opening and closing the cabinet, column 1, line 53),

- a connection element 34 fixed to the first rocker 4,

- a second housing 6;

- a damper 7 disposed in said second housing (within the second housing and the first housing 5, figure 2), said damper for damping a reciprocal pivoting movement, said damper comprising:

- a slider 8, controlled in translation by the connection element 34 and suitable to translate according to a first direction (shown in the movements between figures 7 and 8) corresponding to a pivoting of the hinge,

a kinematic element said slider 8 cooperating with kinematic element for motion conversion suitable to convert a translational motion of the slider into a damping pivoting motion (column 4, lines 6-12),

a viscous medium disposed in said second housing (column 3, lines 6-7);

wherein said first housing 5 is separate from said second housing 6, and wherein said second housing encloses said slider 8, said second housing comprising a casing element 6 separate from the first housing and serving to guide the movement of the slider 8, damping moving elements 15, 16, and said kinematic element for motion conversion, and

wherein said second housing 6 comprises connection elements configured to connect to said first housing 5 (threads for screwing the housing 6 to the cup 5) so that said slider 8 and said damping moving elements 15, 16 are suitable to be assembled with one another with said second housing 6 so that said damper forms a single element suitable to be fixed to one end of said cup in a single operation (screwing the housing 6 to the cup 5). The housing of the slider and brake plates is contained between the base plate and the hinge cup.

Egger has not described in the specification the order in which to assemble the hinge, and the articles are “configured to” be assembled together. The hinge can be assembled in any one of a number of methods and orders. Since the housing part 6 can be screwed to the housing part 5 in a “single operation”, and is configured to connect to the first housing, examiner has determined that Egger reads on the claims in the current form.

Regarding claim 29, Egger discloses the furniture hinge as in claim 28, wherein said first housing 5 has an aperture (allowing pins 19). Egger discloses the claimed invention except for a larger hole in the second housing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to insert a hole in the housing 6, as a change in the shape of a prior art device is a design consideration within the skill of the art. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Applicant has claimed no particular purpose for either of these holes. Since Egger has shown holes in adjacent plates to the housing 6 which are larger than the holes allowing pins 19 in housing 5, it would have been obvious to one of ordinary skill in the art to use similar holes in another adjacent plate.

Regarding claim 30, Egger discloses the furniture hinge as in claim 28, wherein said second housing 6 comprises a casing forming one side enclosure (extended hollow bearing pin 31 is a "side enclosure") and a base disc 6, forming an opposite side enclosure.

### ***Response to Arguments***

Applicant's arguments filed 9/23/2009 have been fully considered but they are not persuasive.

Regarding the allegation regarding the casing element and no reason for separation, examiner contends that the application of a housing does not affect the

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workings of the article or how it performs in its given function. For example, placing a cover over a computer, using a tablecloth, or hanging ceiling tiles does not alter the affect or usage of the covered article. It would have been obvious to cover an exposed article for purposes of aesthetics or to prevent foreign articles from entering the mechanism.

Regarding the braking device assembled separately, Egger does not disclose the manner in which the hinge is assembled. Because of this, examiner is unsure whether the standard procedure, or any variation thereof, could be assembled in a manner as claimed. Since applicant has only claimed "Suitable to be" assembled in such a fashion, examiner contends the mechanisms as shown by Egger meet this requirement.

Regarding the allegation that Egger does not need external damping, examiner agrees. The damping that Egger provides performs in the same manner as claimed by applicant, and is internal to the hinge, and is covered by a two part housing. Egger does not need any further damping from the damping mechanism as shown. Since the damping mechanism as shown is that which is close to the application, examiner contends this is the preferred method of damping for both Egger and the application.

Regarding the allegation that it would not be obvious to substitute the fixing nature using pins, adding an additional member to guide the driver plate, or the modify the cylindrical form of the cup for the hole, examiner has not changed these things, and these are not claimed by applicant. The housing guides the driver plates in that the housing 6 has a protrusion 31 which guides the driver plate in its rotation.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMILY M. MORGAN whose telephone number is (571)270-3650. The examiner can normally be reached on Monday-Thursday, alternate Fri, 7:30am to 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on 571-272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Victor Batson/  
Supervisory Patent Examiner, Art Unit 3677

Emm  
/EMM/